Staff Summary of and Brief Response to Comments on the Bay Area to Central Valley High-Speed Train Revised Final Program Environmental Impact Report

Prepared by:

California High-Speed Rail Authority
925 L Street, Suite 1425
Sacramento, CA 95814
Contact: Mr. Dan Leavitt
916/324-1541

September 2, 2010

California High-Speed Rail Authority. 2010. *Staff Summary of and Brief Response to Comments on the Bay Area to Central Valley High-Speed Train Revised Final Program Environmental Impact Report*. September 2. Sacramento, CA.

Staff Summary of and Brief Response to Comments on the Bay Area to Central Valley High-Speed Train Revised Final Program EIR

1.0 Introduction

This attachment to the *Staff Report for the Bay Area to Central Valley High-Speed Train (HST) Revised Final Program Environmental Impact EIR* summarizes comments received on the Revised Final Program EIR.

2.0 Summary of Comments Received on the Revised Final Program EIR before or at the September 1, 2010 Authority Board Meeting

2.1 Agencies and Organizations Supporting the Staff Recommendation

The following Agencies and Organizations provided oral comment at the September 1, 2010, Authority Board Meeting that supported the staff recommendation.

- Jim Bigelow, Redwood City / San Mateo Chamber of Commerce
- Chuck Reed, Mayor, City of San Jose, CA
- Jim Pierson, Transportation and Operations Director, City of Fremont, CA (read by Kunle Odumade)
- Marshal Kamena, Mayor, City of Livermore, CA
- Duncan McFetridge, representing the Metropolitan Transportation Commission
- Mike Robson, Peninsula Corridor Joint Powers Board (PCJPB/Caltrain)
- Stacy Mortensen, Executive Director, San Joaquin Regional Rail Commission (ACE)

2.2 Agencies, Organizations, and Individuals Opposing Staff Recommendation

2.2.1 Concerns with Response to Comments and Overall Document

The following agencies raised objections to the responses to comments published as part of the Revised Final Program EIR. They stated that the Authority did not adequately respond to their comments made on the document.

- Ms. Cathy Baylock, Mayor, City of Burlingame
- Mr. Steve Emslie, Deputy City Manager, City of Palo Alto
- Mr. Norman L. Allinder, Planning Director, Madera County

With the exception of Madera County, these agencies raised objections to the responses to comments published as part of the Revised Final Program EIR. They stated that the Authority did not adequately respond to their comments made on the document.

The County of Madera expressed concern regarding possible "bias" in the ultimate selection of a maintenance facility by identifying the Castle AFB as a preferred location in the Revised Final Program EIR.

The following commenters stated their dissatisfaction with the responses to comments and did not believe that the responses properly dealt with their issues. The Authority's view is that the 3,755 responses contained in Volume 2 provide a good faith reasoned response to the most significant environmental issues raised and that the Responses to Comments complies with the CEQA requirements for responses when reviewed in its entirety.

Alex Galanter	Ellyn Freed	Melissa Selcher
Aline Bier	Helen Stevens	Mike Caggiano
Amelia Nash	Hinda Sack	Minesh Shah
Andrew Wallace	Howard Morgan	Neva Yarkin
Anita King	Jeff Grabow	Nick Patel
Anne Brocchini	Jennifer and Juergen Pfaff	Nicole Blair
Ash Mcneely	Jennifer LeBlanc	Nigel King
Ben Toy	Jennifer Sandmeyer	Pat Giorni
Bertha Sanchez	Jennifer Slaboda	Pete and Kathy Scopazzi
Beth Beisecker	Jenny Lau	Pete Scopazzi
Bill Cutler	John Brooks	Richard Palmisano
Bob Moss	John Hofer	Robert and Stephanie Martinson
Brian Barron	John Selig	Robert Ross
Caren Chappell	Jonathan and Carolyn Jo Horne	Roger Sack
Cees Feith	Julie Baird	Sarah Cheyette
Cheryl Dean	Kathleen Murren	Scott Stanford

David Harris	Kathy Hamilton	Stephanie Saba
Dee Harrell Mooring	L. K. Rangan	Stephanie Shah
Dee Mooring	Larry and Kate Mone	Stuart Flashman
Dennis Dillon	Lauren Cony	Susan Lazear
Don Barnby	Leslie Reisfeld	Ted Crocker
Don Donoughe	Linda Hall	Tim Kingsbury
Donna Black	Margaret Farney	William Grindley
Dorothy Chow	Martin Fernandez	William Warren
Elisa Odabashian	Martin Mazner	Yungting Liao
David Schonbrunn	Caren Chappell	Jerry Carlson
Stuart Flashman	Rob Braulik	Mary-Helen McMahon
Scott Harmstead	Paul Guerra	Margaret Farney
Russ Peterson	Kathy Hamilton	Elizabeth Alexis
Don Barnby	Lauren Cony	Anjan Ghose
Amy Lennane		

2.2.2 Ridership and Revenue Forecasting

Many commenters provided input regarding the ridership and revenue forecasting process and model used to support the Program EIR/S. Comments offered since publication of the Revised Final Program EIR generally fall into one of four categories:

1. The model itself is flawed;
2. The model was not publicly available;
3. Insufficient consideration has been given to various external critiques; and,
4. Additional model testing and application should be conducted.

It should be noted that all of these comments were provided in one form or another in response to circulation of the Draft Revised Program EIR. Standard Response 4 in the Revised Final Program EIR, Volume 2 provides a detailed eight-page response to these and other ridership-related comments. Further responses to ridership-related comments were provided throughout Volume 2.

In short, the comments offered no new evidence, and responses to these comments have been previously documented. Importantly, allegations regarding the ridership and revenue forecasting have been extensively analyzed and publicly debated since early February 2010, including public comments at the February 2010 Board meeting, a report and memorandum from the Executive Director at the March 2010 Board meeting, and an agenda item at the July 2010 Board meeting that included presentations from Cambridge Systematics (CS) and the Institute of Transportation Studies (ITS). The Board has had evidence before it for several months that allows for “a hard and careful look at its ridership modeling efforts”.

The following sections provide a summary of prior responses that have been provided for the four categories noted above.

Model "Flaws"

Some commenters continue to characterize the ridership and revenue model as "flawed". The following explanation was included in the Revised Final Program EIR in response to similar comments offered on the Draft:

> "…the Authority does not agree with the general statements in numerous letters that the ridership model is flawed, the forecasts inaccurate, or that the ridership forecasts need to be revised as part of further recirculation of the Program EIR. The California High-Speed Rail Ridership and Revenue model (HSR R&R model) is a complex system of dozens of interrelated, state-of-the art model components that span different geographies, different trip purposes, and different travel market segments. The model reflects an appropriate blend of theory and judgment, which is always required in real-world applications of travel forecasting models. The model produces realistic results that are sensitive to the key input variables, and is an appropriate tool for the environmental review purpose for which it has been used. No revisions are necessary." (Volume 2, p 12-9)

Staff recognizes that some very strong differences in professional opinion have been offered during the past six months regarding validity and sufficiency of the ridership and revenue model. However, staff is persuaded by ITS's statement that "Cambridge Systematics has followed generally accepted professional standards in carrying out the demand modeling and analysis". Further, it appears that one of the primary conclusions offered by ITS in its critique is not principally focused on CS' work or the model they developed. Rather, ITS's opinion seems mostly oriented toward the overall state-of-the-practice in travel demand forecasting, and it appears ITS would have come to the same conclusion for any new model developed that used "accepted professional standards".

In staff's view, the professional opinions of the industry practitioner carry more weight in this particular "real world" context. CS has a wealth of travel demand modeling experience accrued over 35 years with the most respected "real-life" transportation customers in the USA and abroad. CS is highly regarded in the industry and even recognized by the ITS team as "the best firm in the business." We believe that CS has provided a thorough response to the ITS critique and other allegations of "flaws", and has shown that it has based its ridership and revenue model development on well-proven, and widely accepted and applied techniques in the industry.

Commenters have not offered any new information to validate their characterization of a "flawed" model. Accordingly, staff does not find any validity to this characterization.

Model Availability

Some commenters continued to assert that model information was not available during the public review process that preceded certification of the original Program EIR/EIS in 2008; these assertions are inaccurate. Over 10 distinct written reports were prepared discussing various aspects of the model development process, peer review, and forecast results. One of these written reports, *Interregional Model System Development*, provided initial estimates of model coefficients and constants. The report identified that these initial estimates were based on statistical analysis of the survey data and did not reflect subsequent model calibration and validation activities. Some of the initial estimates were, in fact, revised through the normal calibration and validation processes. The final constants were included in the *Statewide Model Validation* written report, while the final coefficients were documented in an ASCII text file that was included in the final project deliverable to MTC. The Revised Final Program EIR included the following explanation:

> "Some comments have questioned why certain components of the HSR R&R model (particular constants and coefficients), were revised, but the final component values were not published in a final report. As stated above, it is universal practice in the industry to calibrate a model in a dynamic, rapidly-paced process that tests dozens of different options. Although MTC did not issue a report detailing all components of the final model, which is consistent with professional practice, it is the Authority's understanding that the ridership and revenue model, including the final constants and coefficients, has been publicly available directly from MTC since the study was completed in 2007. Any member of the public who wished to have access to the model could make a request to MTC, which had modeling experts on staff that could assist with making the model available. It is also the Authority's understanding that some entities, including representatives of Caltrans, the University of California at Davis, the University of California at Berkeley, and the University of Calgary, have requested and received some or all of the model files." (Volume 2, p 12-16)

While the final coefficients and constants were not published in a stand-alone, written report during the MTC model development project, these final coefficients and constants have been available from MTC. In short, model information has been publicly available in written or electronic form since 2007.

External Critiques

Several commenters contended that external critiques of the ridership and revenue model prepared by ITS and others have not been sufficiently considered during preparation of the Revised Final Program EIR. The ITS critique was the subject of an extensive public discussion at the July 2010 Board meeting. The Revised Final Program EIR acknowledged this discussion and the Board's consideration of the information:

> "One of the ITS Final Report authors presented the ITS findings to the Authority board at its July 2010 meeting. CS offered its own presentation responding to the ITS Final Report and disputing the conclusions in the ITS report. The Authority board will have the full record of this information before it in conjunction with its anticipated consideration of whether to certify the Revised Final Program EIR and to make a new decision on a preferred HST network alternative for connecting the San Francisco Bay Area and the Central Valley." (Volume 2, p 12-13)

Other critiques prepared by Norm Marshall and Elizabeth Alexis were submitted with comments on the Revised Draft Program EIR. Volume 2 of the Revised Final Program EIR included responses to the issues raised in these critiques either through Standard Response 4 or through individual responses on ridership. The issues raised in all of these critiques have been carefully considered, and CS has provided responses to the satisfaction of staff.

It is important to note that these external critiques do not "point out the same set of serious flaws" as alleged by one commenter. In fact, the critiques conflict with each other on some key items. For example, in an August 30, 2010 memorandum included in the comment letter from Stuart Flashman, Mr. Marshall states, "I reiterate my April 2010 finding that, 'The mode-specific constants in the final model that were used to forecast ridership and revenue are invalid.'" However, the ITS critique does not support Mr. Marshall's conclusion. During the review process, ITS asked detailed questions about the process used to calibrate mode specific constants. CS responded to these questions to the satisfaction of ITS, and the ITS final report did not identify any concerns with the process used to establish the constants or the validity of the constants.

As a second example of the inconsistency between the critiques, an April 26, 2010 memorandum from Mr. Marshall states: "The final frequency (headway) coefficients used in developing the ridership and revenue forecasts are invalid." The ITS critique reached a somewhat different conclusion, with the final report noting:

> "It has been argued that if service headways are sufficiently low, high speed rail travelers may indeed use the system in a manner similar to some urban transit riders, arriving at stations randomly and waiting for the next trains. For such travelers, constraining the waiting time coefficient to equal that for travel time may be appropriate[1]." ("Review of 'Bay Area/California High-Speed Rail Ridership and Revenue Forecasting Study,'" Institute of Transportation Studies, June 2010, p. 7.)

Staff believes that acceptability of "professional judgment" of the model development team is supported by the fact that a model was successfully validated and that results of this validation were subjected to external peer review during model development.

[1] The ITS final report states that the reviewers believe that the constrained value of the headway coefficient is "inappropriate for air travelers".

Additional Testing and Application

Several commenters continued to request additional applications of the ridership and revenue model for a so-called "sensitivity test" of alternative values of the headway coefficient. In so doing, these commenters misquote a letter from Mark Bradley to assert that this "sensitivity test" could be completed in a few hours. This assertion is incorrect as it ignores the fact that simply changing the value of the headway coefficient and rerunning the model will produce invalid results since the model would no longer be calibrated. In order to produce valid results, the mode choice model would need to be recalibrated and revalidated after changing the value of the headway coefficient. Further, since the mode choice model is part of an integrated modeling system, the destination choice and trip frequency choice models would also need to be recalibrated and revalidated using the new "logsum" values from the mode choice model. Once recalibration and revalidation have been completed, then test runs would be needed to assure that the model continues to illustrate reasonable sensitivity to changes in key variables. Depending upon results from these sensitivity runs, a new round of calibration and validation might be needed.

Several commenters also continued to request additional applications of the ridership and revenue model for a new Altamont alignment that serves San Jose and San Francisco on a single alignment without a Bay Crossing. These comments are similar to ones provided on the Revised Draft Program EIR. In response to these comments, the Revised Final Program EIR states:

> "...we do not believe it is necessary to examine an alternative that would cross the Altamont Pass, travel south to San Jose, then up the entirety of the San Francisco Peninsula to reach San Francisco. This is a variation on the Altamont Pass representative network alignment 7.2-9, which would serve San Jose and San Francisco on a single line while also serving Oakland. It is unlikely that a single alignment alternative serving both San Jose and San Francisco via Altamont would generate anywhere close to the 20 million additional riders claimed by the commenter. The reason for this conclusion is that HST travel times to Redwood City, Millbrae and San Francisco would be at least 15 minutes longer traveling via San Jose compared to the Altamont Base alternative that crosses San Francisco Bay in the Dumbarton Corridor. Essentially, the benefit gained from more frequent service to each Bay Area station would be largely offset by the longer travel times to Redwood City, Millbrae, and San Francisco."

As shown by the quote in the prior paragraph and the inclusion ridership forecast results for 21 different network alignment alternatives, the Revised Final Program EIR does provide ample evidence to back a conclusion that "both the Pacheco Pass and Altamont Pass network alternatives have high ridership and revenue potential".

2.2.3 Comments regarding HST alternatives and the number of feasible alternatives studied

Some commenters claimed that the "CEQA Findings of Fact" document identifies only one feasible alternative – the recommended preferred alternative. Others stated that the Revised Draft Program EIR limited its detailed examination of alternatives to the previously preferred Pacheco alignment.

The Revised Final Program EIR describes and analyzes a large range of network alternatives, alignment alternatives and station location options considered for the proposed HST system in the Bay Area to Central Valley study region.

Section 8.2 of the "CEQA Findings of Fact and Statement of Overriding Considerations" (August 2010) decision document provides findings for the rejected Altamont Pass and Pacheco Pass network alternatives. The findings for two of the 11 Altamont Pass network alternatives (the "Altamont Pass Network with San Francisco and San Jose Termini with Dumbarton Crossing" and the "Altamont Pass Network Alternative with San Francisco and San Jose via the San Francisco Peninsula") conclude that, "…this alternative is not a feasible alternative that would substantially lessen the significant environmental impacts of the Preferred Pacheco Pass Network Alternative." (see pages 86 and 89) It appears that this statement was misinterpreted by the commenters for these network alternatives. The finding for these two Altamont Pass network alternatives concludes that they would not substantially lessen the significant environmental impacts as compared to the Preferred Pacheco Pass Network Alternative – it does not state that they are "infeasible". Four of the 11 Altamont Pass network alternatives are found to be infeasible because they fail to meet the underlying purpose and primary project objectives (because they would serve only one or none of the three major urban centers of the Bay Area and only one or none of the region's major commercial airports). The remaining five Altamont Pass network alternatives are found to be infeasible because of constructability/cost issues and environmental impacts (alternatives with the transbay tube), considerable logistical constraints (along the East Bay alignment from Fremont to Oakland) or a combination of both for alternatives with direct service to Oakland, San Francisco and San Jose.

The Revised Final Program EIR provides more detail on the San Jose to Gilroy section because the Superior Court specifically found that this was an area that the May 2008 Final Program EIR did not fully comply with CEQA. As noted on Page P-1 of the Revised Final Program EIR, "The Court concludes that the description of the alignment of HSR tracks between San Jose and Gilroy was inadequate even for a programmatic EIR." In its final judgment the Superior Court found the project description adequate for other sections of the study and therefore the Revised Final Program EIR did not provide more detail for those areas, but rather referenced the 2008 Final Program EIR.

The 21 network alternatives consider a wide range of Altamont Pass and Pacheco Pass alternatives. This range is consistent with the alternatives evaluated in MTC's Bay Area Regional Rail Plan and had considerable input from agencies and the public as providing both a broad range of alternatives as well as the most feasible and practicable alternatives. One commenter suggested an Altamont Pass network alternative with a single line to San Jose and then up the Peninsula

to San Francisco (no bay crossing) which was not one of the 21 network alternatives analyzed – primarily because it was not considered to be a feasible alternative. The "Altamont Pass Network Alternative with San Francisco, San Jose, and Oakland Termini with No San Francisco Bay Crossing" which was evaluated, is similar to this concept but also includes a direct link to Oakland. No practicable alternative for through service for an Altamont Pass network alternative from San Jose to San Francisco was identified by either the Authority's program process, or MTC's Regional Rail process. To have an Altamont alternative with single line to San Jose and then up to San Francisco would require that the HST service to stub end in San Jose and then reverse direction. This type of operation results in a substantial travel time penalty identified in the 2008 Final Program EIR as "..a minimum of 20 minutes" (page 7-37). For the "Altamont Pass Network Alternative with San Francisco, San Jose, and Oakland Termini with No San Francisco Bay Crossing" alternative, the trip time for Los Angeles to San Jose is estimated at 2 hours and 19 minutes, whereas the trip time between Los Angeles and San Francisco is estimated at 3 hours and 17 minutes (in contrast the trip time between Los Angeles and Oakland is estimated at 2 hours and 23 minutes). This alternative would therefore not provide competitive travel times between Los Angeles and San Francisco. There is no local or regional support for this concept. Moreover, even the commenter who suggested performing ridership analyses on this concept was clear that they were not advocating this alternative (which would fully utilize the Caltrain corridor from San Jose to San Francisco).

The Authority received many comments expressing very strong views about the alternatives. These comments were addressed in Volume 2 of the Revised Final Program EIR. In addition, Standard Response 10 of Volume 2 of the Revised Final Program EIR (pages 12-28 through 12-36) provides an overview of the range of comments received on alternatives and the range of options recommended for study in the comments.

2.2.4 Union Pacific Railroad

Union Pacific Railroad (UPRR) sent a letter dated September 1st, 2010 to the Authority restating that all their comments and objections submitted to the Authority to-date still stand. Additionally, they made the following statement that:

"Notwithstanding alternative solutions to UPRR's concerns or any requirements imposed by regulatory authorities, this letter will remind HSR that UPRR will be sole determiner of any other additional conditions, standards or remedies required to minimize the impact HSR may have on any adjacent UPRR rights-of-way or facilities."

2.2.5 Monterey Highway Impacts

As with the initial comment letter from Stuart M. Flashman on the Revised Draft Program EIR, Mr. Flashman contends that the Authority did not adequately identify and evaluate the impacts associated with placement of the high speed train in Monterey Highway and the associated reduction in the number of lanes from 6 to 4 for approximately 3.3 miles of that roadway. The Authority notes that it did provide comprehensive responses to all of Mr. Flashman's comments regarding Monterey Highway impacts (traffic, noise, vibration, construction), and the Authority disagrees that the responses are inadequate. In many cases, Mr. Flashman

requests more evaluation and detail regarding impacts that would appear to be more appropriately evaluated at the project level.

2.2.6 Setec Alignment Alternative

The Setec Report attached as part of the Stuart Flashman letter was raised again in Mr. Flashman's comments on September 1, 2010. While the Setec Alignment Alternative varies in its details from other Altamont alignments developed in the Program EIR, it is a representative alignment that is similar to alignments analyzed in the Program EIR.

It is comprised of an alignment south of Pleasanton and Livermore that was screened out at the initial stage due to impacts to protected agricultural resources and the absence of a existing transportation corridor south of Livermore. In Fremont and Newark, a new alignment was proposed following the SFPUC Hetch Hetchy pipeline right of way. The Authority asked the SFPUC to comment on the proposal and they deemed it infeasible. Bay crossing issues were discussed at the Program level. Finally, responses to concerns raised regarding the Authority's response to the Setec US-101 alignment are impossible to address without an alignment described with a greater level of detail. Our analysis of the US 101 was based on best professional judgment for the location of a most-feasible alignment following US 101.

2.2.7 Train Splitting

The Setec Report discusses the concept of train coupling and splitting to increase frequency of HST service. This was not an issue that the court judgment identified for further CEQA work. In fact, the court concluded that the Authority's rationale for not including train splitting and recoupling as an operational alternative for the high-speed train system was supported by substantial evidence.

The advantages and disadvantages of train splitting and coupling, as well as the specific characteristics of the travel demand in California were considered in the 2008 Final Program EIR. The percentage of HST trains actually using this practice worldwide is quite small. The Program EIR found that increases in travel time due to train splitting on the main trunk line between the major markets are undesirable. The information in the Setec report, and additional comments received, which describe train-splitting and recoupling in European markets, does not change this conclusion.

An additional shortcoming of the analysis in the Setec Report is that it does not take into account the forecasts of HST traffic, which are needed for a realistic operations plan. Savings or benefits are asserted in a hypothetical operator's world, where running trains and costs are paramount, and the volume of passengers to be served and revenue generated are often not considered.

2.2.8 Other Termini

A letter was read with the statement that the EIR is inconsistent with AB 3034 because it does not address a required Oakland station. As explained in the response to comments, AB 3034 does not mandate an Oakland station either in Phase 1 or in Phase 2 of the HST system. The EIR includes evaluation of network

alternatives that provide service to an Oakland station. Although not recommended by staff, these alternatives are options that the Board has before it and can choose. AB 3034 explains that "nothing in this section shall prejudice the authority's determination and selection of the alignment from the Central Valley to the San Francisco Bay Area and its certification of the environmental impact report."

2.2.9 Other Impacts

Several letters discussed other impacts that the commenters assert should have been discussed in the Revised Final Program EIR, particularly due to more detailed information being developed as part of project-level EIR work. CEQA provides for a lead agency to prepare a general, program-level of analysis for proposed decisions that are programmatic in nature. In the current process, the Authority is preparing to make a general decision about a preferred alignment to connect the Bay Area to the Central Valley, including station location options. The EIR is a tier-1, Program EIR. Consistent with the CEQA Guidelines provisions on tiering, the Authority will address detailed, site-specific information in connection with second tier, project-level environmental documents.

One letter indicated that the Revised Final Program EIR should have identified additional impacts (noise, vibration, and exposure to air pollution) from the alignment between San Jose and Gilroy due to the corrected location of the HST in relation to the Monterey Highway. As explained in the Revised Final Program EIR, Chapter 2, the corrected description of the HST alignment resulted in new discussion of impacts in the areas of traffic, land use, cultural. Other impacts analysis did not change as a result of the corrected project description based on the breadth of the study area at the program level or the methodology employed in programmatic analysis.

2.2.10 Further Revision and Recirculation of Program EIR

Comments that were critical of various issues generally suggested that the Authority must revise and recirculate the Bay Area to Central Valley HST Revised Program EIR. Staff believe that the issues raised do not trigger further revision and recirculation of the Program EIR because they do not show:

(1) a new significant environmental impact from the project or from a new mitigation measure;

(2) a substantial increase in the severity of an environmental impact that would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;

(3) a feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the decision maker declines to adopt;

(4) the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

While some of the comments received in late August and on September 1st claimed to identify new significant impacts not previously disclosed, these impacts are analyzed generally in the Program EIR and/or the alleged new impact is a detailed impact that must be evaluated at the project level.